

Amendments to the Specification

Please replace the paragraph at page 1, lines 7 through 10 with the following amended paragraph:

This application is a continuation-in-part of U.S. Application 09/909,348 filed July 19, 2001, which claims the benefit of US Provisional Application No. 60/219,800, filed July 20, 2000, the entire teachings of which are incorporated herein by reference.

Please replace the paragraph at page 2, line 18 through page 3, line 5 with the following amended paragraph:

The invention relates to methods for promoting cardiac tissue or myocardium repair, promoting vascularization or inhibiting vascular occlusion or restenosis. The method comprises administering to the cardiac tissue or blood vessels a therapeutically effective amount of an angiogenic thrombin derivative peptide. In a preferred embodiment, the peptide is a peptide described in United States Patent No. 5,500,412 or 5,352,664, the contents of which are incorporated herein by reference in their entirety. For example, the peptide can preferably comprises a thrombin receptor binding domain having the sequence Arg-Gly-Asp-Ala (~~SEQ ID NO. 2~~) (SEQ ID NO: 1); and a serine esterase conserved sequence. Preferred serine esterase conserved sequences comprise Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val (~~SEQ ID NO. 2~~) (SEQ ID NO: 2). In yet a more preferred embodiment, the thrombin derivative peptide comprises the amino acid sequence: Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val (~~SEQ ID NO. 3~~) (SEQ ID NO: 3), such as a peptide which consists of the amino acid sequence Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gl y-Gly-Pro-Phe-Val (~~SEQ ID NO. 3~~) (SEQ ID NO: 3). The peptide having the sequence of SEQ ID NO. 3 is also referred to herein as "TP508").

Please replace the paragraph at page 3, lines 6 through 13 with the following amended paragraph:

Alternatively, the thrombin derivative peptide is a physiologically functional equivalent of the thrombin derivative peptide comprising the amino acid sequence of SEQ ID NO: 3. In a particular embodiment, the thrombin derivative peptide comprises the modified amino acid

sequence: ~~Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-CONH₂~~ (SEQ ID NO: 4) Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-NH₂ (SEQ ID NO: 4). In a particular embodiment, the thrombin derivative peptide consists of the modified amino acid sequence: ~~Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-CONH₂~~ (SEQ ID NO: 4) Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-NH₂ (SEQ ID NO: 4).

Please replace the paragraph at page 3, line 27 through page 4, line 2 with the following amended paragraph:

Figure 1 is a graph showing that increasing concentrations of TP508 (peptide having the amino acid sequence of ~~SEQ ID NO: 3~~) SEQ ID NO: 3) stimulates the proliferation of human microvascular endothelial cells *in vitro*. The graph shows the cell count 48 hours after being administered various concentrations of TP508 (indicated in µg/ml).

Please replace the paragraph at page 7, lines 1 through 11 with the following amended paragraph:

In one embodiment, the invention provides for several polypeptides containing specific amino acid sequences, such as a polypeptide compound in which the thrombin receptor binding domain includes the L-amino acid sequence Arg-Gly-Asp-Ala (~~SEQ ID NO: 1~~) (SEQ ID NO: 1) together with the serine esterase conserved amino acid sequence, Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val (~~SEQ ID NO: 2~~) (SEQ ID NO: 2). In a preferred embodiment, the polypeptide compound includes the L-amino acid sequence Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val (~~SEQ ID NO: 3~~) (SEQ ID NO: 3). The polypeptide compound can be modified by amidation of the carboxy terminus. For example, SEQ ID NO: 3 can be amidated as follows: ~~Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-CONH₂~~ (~~SEQ ID NO: 4~~) Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-NH₂ (SEQ ID NO: 4).

Please replace the paragraph at page 10, lines 21 through 25 with the following amended paragraph:

A domain having a serine esterase conserved sequence comprises a polypeptide sequence containing at least 4-12 of the N-terminal amino acids of the dodecapeptide previously shown to be highly conserved among serine proteases (Asp-X₁-Cys-X₂-Gly-Asp-Ser-Gly-Gly-Pro-X₃-Val - ~~SEQ ID NO: 5~~) SEQ ID NO: 5); wherein X₁ is either Ala or Ser; X₂ is either Glu or Gln; and X₃ is either Phe, Met, Leu, His, or Val).

Please replace the "Sequence Listing" filed on May 10, 2002 (sheets 1/2 through 2/2) with the Substitute "Sequence Listing" (sheets 1/2 through 2/2) comprising SEQ ID NOs.:1-5 filed concurrently herewith.